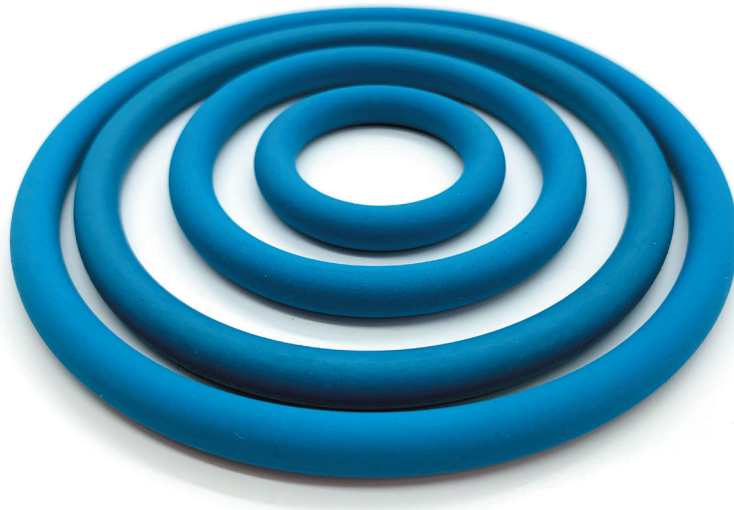




BST Detectable RJT Gaskets | PR10RJT*0DB



The BST Detectable RJT Gaskets

Our detectable RJT gaskets are made from highly durable EPDM rubber containing evenly dispersed ferromagnetic additives (for metal detection) and high atomic number elements (for x-ray visibility). The entire formulation is food contact approved under FDA, EU and sanitary 3A requirements. EPDM gaskets have a good resistance to ozone, ageing and weathering. They are suitable for HFC & HFD flame retardant hydraulic oils and brake fluids and have exceptional resistance to hot water, steam and acids. Our RJT gaskets are high performance, blue, food grade and

also minimise foreign body contamination risks by being detectable by metal detection systems and x-ray inspection systems.

The use of detectable seals and gaskets is a strong display of due diligence in the prevention of foreign body contamination. Seal fragments as small as 5mm³ can be identified by correctly calibrated inspection systems, although detection performance will vary based on the food being inspected, the equipment type and other parameters.

BST RJT Gasket Advantages

- ✓ Detectable by metal detection & x-ray inspection systems
- ✓ CFR 177.2600 FDA Compliant
- ✓ Highly visible blue colour for easy visual identification
- ✓ Wide operating temperature range (-40°C ~ +140°C)
- ✓ Resistant to hydraulic oils, steam and acids
- ✓ Extraction tested, ADI and Nut free
- ✓ Excellent overall weathering resistance
- ✓ Can be used as part of HACCP and BRC procedures
- ✓ Displays due diligence in the prevention of foreign body contamination

RJT O-Rings

RJT unions (Ring Joint Type) are otherwise known as a standard union. These are widely used in the food sector and particularly popular for sections of pipework that are frequently dismantled, e.g. for cleaning. RJT unions use an “O-Ring” style gasket - these are the most commonly requested gaskets in metal detectable version for the food sector.



Imperial Size	Cross Section Ø	Inside Diameter	Outside Diameter	Order Code
1"	6.60 mm	26.70 mm	39.90 mm	PR10RJT10DB
1½"	6.60 mm	39.40 mm	52.60 mm	PR10RJT15DB
2"	6.60 mm	52.10 mm	65.30 mm	PR10RJT20DB
3"	6.60 mm	77.50 mm	90.70 mm	PR10RJT30DB
4"	6.60 mm	93.90 mm	107.10 mm	PR10RJT40DB

Product and Packaging Information

Pack Size	1	Detectability	Metal & X-Ray Visible
Material	EPDM Rubber	Commodity Code	39012010

Safety Certificates / Approvals

FDA Approved	BRC Compliant	ISO 9001:2015	Made In Britain
EU Compliant			



Food Contact Compliance

- ✓ The material is FDA compliant to CFR 21 177-2600
- ✓ The material is EU compliant to EC1935 / 2004
- ✓ The material is 3-A 18-03 Compliant Class 3 (except for milk fat test)

Product Materials

BST detectable RJT gaskets are made using EPDM rubber, which is a polymer of ethylene, propylene and a small amount of diene. Blended homogenously throughout the polymer are ferrous based metal additives and high density additives. The entire formulation is compliant to FDA, 3A Sanitary and EU food contact regulations.

Typical Applications

Gaskets for hygienic / sanitary unions in food, drink, pharmaceutical and cosmetic production facilities that utilise metal detection and or x-ray production inspections systems throughout the production process or as an end of line inspection.

Properties

Original	Standard	Unit	Typical Values
Specific Gravity	ASTM D1817	g/cm ³	1.61
Durometer shore A (slab)	ASTM D2240	Shore A	67
Elongation % (Dumbbell)	ASTM D412	Psi	285
Tensile strength Psi (Mpa) (Dumbbell)	ASTM D412	%	1073 (7.4)
Compression set % 22h @ 212°F (100°C) (slab)	ASTM D395B	%	15.1
Minimum service temperature		°C	-40
Maximum service temperature		°C	+140

Global Migration Results Of FDA Extraction On EC805 Material Samples (mg/inch²)

FDA Test Method	Reflux Test Conditions	Mass Loss	Limit	Conclusion
CFR 177.2600 (e)	De-ionised water, 7 hours	1.31	20	PASS
CFR 177.2600 (e)	De-ionised water, 2 hours	0.17	1	PASS
CFR 177.2600 (f)	N-hexane, 7 hours	81.47	175	PASS
CFR 177.2600 (f)	N-hexane, 2 hours	0.76	4	PASS
* Maximum acceptable global migration according to FDA CFR 177.2600				

Metal Detectability

BST detectable gaskets are made using an electromagnetically detectable and x-ray visible rubber compound. Metal detectability performance will vary based on, but not limited to the following factors:

- Calibration Levels
- Product Type (E.g. Wet, Dry, Frozen, Liquid)
- Aperture Dimensions
- Orientation

Orientation is a highly influential factor for the metal detectability of a contaminant that is non spherical, i.e. it will be easier to detect the contaminant when passing in one orientation compared to another - this is known as the orientation effect.

For this reason BST recommend that all our products be thoroughly tested on your metal detection systems by a trained and certified professional. It may be the case that your equipment needs to be re-calibrated in order to reliably detect this product. Such a professional should be available by contacting the manufacturer of your metal detection system.

X-Ray Visibility

In contrast to metal detection, x-ray visibility is determined by material density. For this reason these rubber gaskets contain an additional, evenly dispersed, food safe, high density additive.

Based on our experience and testing, positive readings should be consistent for fragments as small as 6mm³. X-ray detection performance will be reduced when small fragments are buried in deeper, denser products. Detection will depend on food product type and density.

We highly recommend that all our products be thoroughly tested on your x-ray inspection systems by a trained and certified professional. It may be the case that your equipment needs to be recalibrated in order to reliably detect this product. Such a professional should be available by contacting the manufacturer of your x-ray inspection system.

The information provided in this product specification sheet is based on our experience and knowledge to date and we believe it to be true and reliable. This information is intended as a guide for your use of our products, the use of which is entirely at your own discretion and risk. We, BS Teasdale & Son Ltd, cannot guarantee favourable results and assume no liability in connection with the use of our products. © 2022 BS Teasdale & Son Ltd. All Content, Data & Images are owned by BS Teasdale & Son Ltd and are protected by international copyright law.

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